

CLAIMS

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- 5 1. A door coupling for a door (2) of a motor vehicle, in which the door (2)
can be displaced with respect to a door pillar (3) in a transverse
movement combined with a pivoting movement by means of a four-joint
mechanism, the four-joint mechanism having a supporting arm (4)
connected in an articulated manner to the door (2) and in an articulated
10 manner to the door pillar (3) and a control rod (5) connected in an
articulated manner to the door (2) and in an articulated manner to the
door pillar (3), the supporting arm (4) being fastened in an articulated
manner with regard to the door and pillar at in each case two gudgeons
15 (7a, 7b, 14a, 14b) assigned to the end regions of the supporting arm (4),
wherein the control rod (5) is of single piece design and with regard to
the door or pillar is coupled to a bearing plate (9) to which a
corresponding gudgeon (7a) of the supporting arm (4) is also coupled,
and the control rod (5), at its end remote from this side, is coupled to a
hinge part (19),
20 characterized in
that the hinge part (19) the control rod (5) is coupled to can be displaced
jointly with and in the direction of the control rod (5) relative to a
corresponding hinge part (12) assigned to a gudgeon (14a) of the
supporting arm (4).
- 25 2. The door coupling according to claim 1, characterized in that the hinge
part (19) which is assigned to the remote end of the control rod (5) can
be displaced relative to the corresponding hinge part (12) of the
supporting arm (4) by a slot (20) being formed in at least one of the two
hinge parts.

3. The door coupling according to claim 1 or 2, characterized in that the hinge parts (12, 19) displaceable relative to each other can be fastened via screws to the door (2), and that in at least one of the door hinge parts (12, 19) holes (15, 20) are provided as slots (20) in the direction of the x-axis of the vehicle for receiving the screws.
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4. The door coupling according to one of claims 1 to 3, characterized in that the supporting arm (4) has a base supporting arm (4a) and at least one supporting arm part (4b) which can be detached from said base supporting arm and comprises the two gudgeons (14a, 14b) provided at one end of the supporting arm (4), and means (16, 17) for the mutual fastening of the base supporting arm (4a) and supporting arm part (4b), and that an axis (16a) passing through the tangent plane (11) of the base supporting arm (4a) and supporting arm part (4b) allows adjustment of the supporting arm part (4b) with respect to the base supporting arm (4a) by mutual twisting around a pivot axis (16a) which is perpendicular with respect to the tangent plane (11).
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5. The door coupling according to claim 4, characterized in that the pivot axis (16a) is arranged between the gudgeons (14a, 14b) of the supporting arm part (4a), and at a distance from the pivot axis (16a) at least one fixing and/or guide element (17) passes through the tangent plane (11) of the base supporting arm (4a) and supporting arm part (4b).
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- 25 6. The door coupling according to claim 5, characterized in that the fixing and/or guide element at least comprises a slot (18) which is formed along a circular arc around the pivot axis in the end side of the base supporting arm (4a) or the supporting arm part (4b) and a hole (18) which is arranged on the corresponding circular arc in the side of the respectively other part of the base supporting arm (4a) and supporting arm part (4b), the supporting arm part (4b) being releasably fixable in
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each rotational position with respect to the base supporting arm (4a) by means of at least two spaced-apart fixing elements (17), on the one hand in the pivot axis (16a) and on the other hand on a circular arc at a distance thereto.

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7. The door coupling according to one of claims 5 or 6, characterized in that the fixing and/or guide elements are formed by screw/nut elements (17).

8. The door coupling according to one of claims 4 to 7, characterized in that the at least one supporting arm part (4b) faces the door (2).

9. The door coupling according to one of claims 4 to 8, characterized in that the axis (16a) passing through the tangent plane (11) is the axis of a screw (16) and coincides with the pivot axis (16a).

10. The door coupling according to one of claims 4 to 9, characterized in that with the door (2) closed the pivot axis (16a) lies essentially in the horizontal and parallel to the direction of travel of the motor vehicle.

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